

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No.: 10/802,321
Appellants: Edlund, et al.
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Examiner: Timblin, Robert M.
Confirmation No.: 3735
Title: METHOD FOR SYNCHRONIZING DOCUMENTS FOR
DISCONNECTED OPERATION

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APPEAL BRIEF

In response to the Final Office Action dated July 20, 2011, rejecting pending claims 1-4, 7-16, 18, and 19, and in support of the Notice of Appeal and the Pre-Appeal Brief Request for Review filed November 10, 2011, and further in response to the Notice of Panel Decision from the Pre-Appeal Brief Review mailed January 24, 2012, Appellant hereby submits this Appeal Brief to the Board of Patent Appeals and Interferences.

In accordance with the Pre-Appeal Brief Conference Pilot Program, the period of time for filing an appeal brief is February 24, 2012, or one month from the mailing date of the Notice of Panel Decision from the Pre-Appeal Brief Review. In the event that fees are due, please apply all fees required or credits due in this case to Deposit Account 12-2158.

Appellants respectfully request reconsideration and reversal of the Examiner's rejections of the pending claims.

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REAL PARTY IN INTEREST

The Real Party in Interest is International Business Machines Corporation, the owner of all rights of this patent application by virtue of an assignment recorded at reel and frame number 015018/0652.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

The patent application as originally filed included claims 1-27. A non-final Office Action was mailed on October 12, 2006, rejecting claims 1-27. A response was filed November 22, 2006 including amendments to the specification and the canceling of claims 21-25. A final Office Action was mailed on February 22, 2007, rejecting claims 1-20, 26, and 27. A phone interview was held between Appellants' attorney and the examiner on March 27, 2007, resulting in the examiner's withdrawal of the final Office Action dated February 22, 2007. A non-final Office Action was mailed on May 3, 2007, rejecting claims 1-20, 26, and 27. A response was filed July 20, 2007 including amendments to 1, 2, 16-18, 26, and 27. A final Office Action was mailed on October 17, 2007, rejecting claims 1-20, 26, and 27. A response and Request for Continued Examination (RCE) were filed December 6, 2007, including amendments to claims 1, 4, 5, 16, 19, 20, and 26. A non-final Office Action was mailed March 27, 2008, rejecting claims 1-20, 26, and 27. A response was filed June 26, 2008, in which claims 26 and 27 were canceled. A non-final Office Action was mailed October 31, 2008, rejecting claims 1-20. A response was filed April 28, 2009, including amendments to the specification and amendments to claims 1 and 16. A final Office Action was mailed on July 29, 2009, rejecting claims 1-20. A response and RCE were filed January 29, 2010, including amendments to claims 1 and 16. A non-final Office Action was mailed April 5, 2010, rejecting claims 1-20. A response was filed July 5, 2010,

including amendments to the specification and claims 1 and 16, and in which claims 6 and 17 were canceled. A final Office Action was mailed on August 20, 2010, rejecting claims 1-5, 7-16, and 18-20. A response and RCE were filed January 20, 2011. A non-final Office Action was mailed on February 10, 2011, rejecting claims 1-5, 7-16, and 18-20. A response was filed May 9, 2011, including amendments to claims 1, 2, and 16, and in which claims 5 and 20 were canceled. A final Office Action was mailed on July 20, 2011, rejecting claims 1-4, 7-16, 18, and 19. A Notice of Appeal and Pre-Appeal Conference Request was filed November 10, 2011. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed January 24, 2012.

Accordingly, the status of the claims is that claims 1-4, 7-16, 18, and 19 are pending in the application and are the subject of this appeal.

STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Office Action mailed July 20, 2011

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1

Appellant's invention as recited in independent claim 1 relates to a method for synchronizing a client (e.g., 100) having a client database (e.g., 18-1) with a server (e.g., 14) having a server database (e.g., 22-1) (see, for example, FIG. 1 of Appellants' drawings as filed). In pertinent part, Appellants' method comprises calculating at the server database (e.g., 22-1), for a plurality of times and a plurality of clients, a document score for each document in a plurality of documents in the server database (see, for example, paragraph [00020] of Appellants' specification as filed). Each document score designates an importance relative to other documents of a respective one of the documents to a respective one of the clients at one of the times (see, for example, paragraph [00020] of Appellants' specification as filed). Each document score is indicative of whether the document should be synchronized between the respective client and the server database (see, for example, paragraph [00020] of Appellants' specification as filed). The method step of calculating the document score includes determining whether a relationship exists between the respective one of the documents and another of the documents in the server database (see, for example, paragraph [00020] of Appellants' specification as filed). The method further comprises initiating a synchronization task at one of the clients, for updating documents in the client database to match documents in the server database. The synchronization task specifies a threshold value that indicates the document score value for a document to be synchronized. The method further comprises sending from the identified server and server database to the client a list of server documents produced based upon a comparison of the threshold value to the document scores, sending from the client to the identified server a fetch list based upon the list of server documents, and transmitting one of the documents in the server database to the client based on the fetch list (see, for example, FIGs. 2 and 3B and paragraphs [00025], [00026] of Appellants' specification as filed).

Independent claim 16

Appellant's invention as recited in independent claim 16 relates to a computer program product for use with a computer system having a server (e.g, 14) with a server database (e.g., 22-1) (see, for example, FIG. 1 of Appellants' drawings as filed). In pertinent part, the computer program product comprises program code for calculating at the server database, for a plurality of times and a plurality of clients, a document score for each of a plurality of documents stored at the server database (e.g., 22-1), each document score designating an importance relative to other documents of a respective one of the documents to a respective one of the clients at one of the times, each document score indicative of whether the document should be synchronized between the respective client and the server database, wherein calculating the document score includes determining whether a relationship exists between the respective one of the documents and another of the documents in the server database. The program code further comprises program code for initiating a synchronization task at one of the clients, the synchronization task for updating documents in the client database to match documents in the server database, the synchronization task specifying a threshold value that indicates the document score value for a document to be synchronized, and identifying the server and the server database for synchronization. The program code further comprises program code for sending from the identified server and server database to the client a list of server documents produced based upon a comparison of the threshold value to the document scores. The program code further comprises program code for sending from the client to the identified server a fetch list based upon the list of server documents; and program code for transmitting one of the documents in the server database to the client based on the fetch list (see, for example, FIGs. 2 and 3B and paragraphs [00025], [00026] of Appellants' specification as filed).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The final Office Action dated July 20, 2011 issued the following rejection:

- I. Claims 1-4, 7-11, 12, 13, 15, 16, 18, and 19 are rejected under 35 USC §103(a) as being obvious over Loveland (US Publication No. 2003/0162555) in view of Leung, *et al.* (US Patent No. 7,092,977 – hereinafter “Leung”), and further in view of Cameron, *et al.* (US Publication No. 2003/0172113 – hereinafter “Cameron”).
- II. Claim 14 is rejected under 35 USC §103(a) as being obvious over Loveland in view of Leung and Cameron, and further in view of Roberts (U.S. Publication No. 2005/0065856).

ARGUMENT

Ground I -- Rejection of claims 1-4, 7-11, 12, 13, 15, 16, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Loveland in view of Leung and Cameron.

Independent Claim 1

Claim 1 recites in part “a method for synchronizing a client having a client database with a server having a server database,” comprising “calculating at the server database...a document score for each document in a plurality of documents in the server database,” wherein “calculating the document score” comprises “determining whether a relationship exists between the respective one of the documents and another of the documents in the server database.” Claim 1 further recites in part that the method comprises “sending from the client” to an “identified server” a “fetch list based upon the list of server documents,” and “transmitting one of the documents in the server database to the client based on the fetch list.”

The final Office Action mailed July 20, 2011 at pages 3 and 15 asserts that the primary reference, Loveland at paragraphs [0013], [0015], [0042], and [0044] teaches that a relationship exists between documents.

Loveland at paragraph [0044] teaches emails being of varying importance. For example, an email that contains the words “coin” or “penny” may be of higher value to a penny collector than emails that do not contain these words. However, Loveland does not calculate a document score by determining whether a relationship exists between emails. In Loveland’s example, there is no relationship between the email containing the words “coin” or “penny” and other emails. Thus, a calculated score is not influenced (increased or decreased) based on the importance of other documents to the

document being scored. For purposes of further clarifying this distinction, Appellants refer to paragraph [0020] of Appellants' specification.

The final Office Action refers to Loveland at paragraph [0013], [0015], and [0042] as taking into consideration the value of documents in determining whether a data item ought to be synchronized. However, Loveland at paragraph [0013] states that the determination is made in response to a user-made instruction, or in response to a message from another device indicating that the data item ought to be synchronized, or by consulting a flexible set of rules. There is no mention of calculating the value as a document score that includes making the determination described in paragraph [0013] of Loveland. In Loveland, a relationship, if any, between a document containing the data item and the message from the other device has no bearing on the generation of a document score.

Loveland at paragraph [0015] states that the flexible selection rules takes into consideration the value of the data. Regardless of whether this is true, the data value is not calculated by determining whether a relationship exists between a document of a client and a document in a server database, as claimed.

Loveland at paragraph [0044] states that the value of data is determined by user preferences and/or a network administrator. A cited example includes a user viewing spam emails being less important to synchronize, and that emails from particular senders (clients, bosses, etc.) may be of greater value to the user than spam emails. However, there is likewise no teaching or suggestion at paragraph [0044] of determining whether a relationship exists between such spam emails and the emails from the senders in order to calculate a document score, as recited in independent claim 1. In Loveland, the spam emails and the emails from the senders are two independent examples, each having a different value of importance to the user. In particular, spam email in and of itself has a threshold value, which is not determined by a comparison, or any other relationship, with respect to other email messages.

Even if there is a relationship in the emails of paragraph [0044], the relationship is not determined to calculate a document score. The Office Action refers to Loveland at paragraph [0015] as disclosing a document score. However, Loveland at paragraph [0015] refers to flexible selection rules taking into consideration the value of the data, with no mention of calculating a document score.

Leung and Cameron likewise fail to teach or suggest determining whether a relationship exists between the respective one of the documents and another of the documents in the server database, as recited in independent claim 1. Thus, none of Loveland, Leung and Cameron teaches or suggests (1) determining whether a relationship exists between the respective one of the documents and another of the documents in the server database, as recited in independent claim 1.

Appellants further submit that the combination of Loveland, Leung, and Cameron does not expressly or inherently disclose sending from the client to the identified server a fetch list based upon the list of server documents, and transmitting one of the documents in the server database to the client based on the fetch list, as claimed in independent claim 1.

The Office Action at page 5 acknowledges that Loveland and Leung do not teach or suggest this limitation. However, the Office Action relies on Cameron to teach this limitation. In particular, the Office Action cites Cameron at paragraphs [0052] and [0056] as teaching a fetch list that is sent from a client to an identified server. To the contrary, Cameron at paragraph [0052], lines 6-7 teaches that, during synchronization between a server 102 and a small device 106, the server 102 sends a list of synchronizable documents to the small device 106. There is no teaching or suggestion in Cameron of the small device 106 sending a fetch list to the server 102.

For at least the reasons set forth above, Appellants respectfully submit that Loveland, Leung, and Cameron, either alone or in combination, do not teach or suggest all the limitations recited in claim 1 and therefore that claim 1

is allowable over the cited references. Appellants therefore respectfully request withdrawal of the rejection of independent claim 1.

Independent Claim 16

Claim 16 is similar in language to the language recited in claim 1. More specifically, Appellants' independent claim 16 recites in relevant part a computer program product for use with a computer system having a server with a server database comprising program code for calculating the document score, wherein calculating the document score includes determining whether a relationship exists between documents in a server database. Consequently, all of the arguments presented above with regard to independent claim 1 are reiterated herein with full force and effect.

Appellants therefore submit that independent claim 16 is also patentable over the combination of Loveland, Leung, and Cameron, for at least those reasons provided in connection with claim 1, and therefore respectfully request withdrawal of the rejection.

Dependent Claims 2-4, 7-11, 12, 13, 15, 18, and 19

Each of these dependent claims depends from one of allowable independent claims 1 and 16 and incorporates all of the independent claim's limitations. Therefore, Appellants submit that dependent claims 2-4, 7-11, 12, 13, 15, 18, and 19 are allowable at least for the reasons provided above with respect to claims 1 and 16, respectively. In addition, each of the following dependent claims recites an additional limitation that further distinguishes the claims from the combination of Loveland, Leung, and Cameron, as described below.

Dependent Claim 2

Dependent claim 2 recites that “the step of sending comprises sending from the server to the client a list of server documents produced based upon a comparison of a threshold value to the document scores, wherein the list of server documents includes documents whose scores exceed the threshold value.” The Final Office Action at page 6 indicates that Loveland at paragraph [0045] teaches the limitations of claim 2. However, Loveland at paragraph [0045] teaches that after consulting a set of selection rules, a determination is made whether to synchronize a data item. For example, a determination is made that data items must have at least one predetermined value in order to be synchronized, for example, spam might fall below that threshold value. However, there is no teaching or suggestion in Loveland of a comparison of the predetermined/threshold value and a set of document scores, as claimed. In particular, there is no teaching or suggestion in Loveland of a sending from a server to a client a list of server document produced upon a comparison between spam and the data items and the threshold value. Instead, paragraph [0045] refers to a predetermined/threshold value for determining whether a document should be synchronized. Thus, Appellants submit that Loveland, alone or in combination with Leung and Cameron, does not anticipate or suggest dependent claim 2.

Dependent Claim 7

Dependent claim 7 recites “determining if the client database includes a newly created document,” and “transmitting the newly created document to the server.” The Final Office Action refers to Cameron at paragraph [0042] as teaching the limitations of claim 7. However, Cameron at paragraph [0042] refers to updating an existing document, not creating a new document. It therefore follows that Cameron at paragraph [0042] does not teach or suggest a “newly created document,” as claimed in claim 7.

Thus, Appellants submit that Cameron, alone or in combination with Leung and Loveland, does not anticipate or suggest dependent claim 7.

Dependent Claim 8

Dependent claim 8 recites “assigning a document score having a maximum value to the newly created document.” The Final Office Action refers to Loveland at paragraph [0059] as teaching the limitations of claim 8. However, Loveland at paragraph [0059] refers to an example that makes no mention of a document score having a maximum value, or of a newly created document.

Thus, Appellants submit that Loveland, alone or in combination with Leung and Cameron, does not anticipate or suggest dependent claim 8.

Ground II -- Rejection of claim 14 under 35 USC §103(a) as being unpatentable over Loveland in view of Leung and Cameron, and further in view of Roberts (U.S. Publication No. 2005/0065856)

Dependent claim 14 depends from independent claim 1, and thereby incorporates all of its respective limitations. Appellants therefore respectfully request withdrawal of this rejection for the reason that claim 14 is dependent from allowable independent claim 1, and for the reason that Roberts, either alone or in combination of Loveland, Leung, and Cameron, fails to teach or suggest the claim limitations of claim 1.

CONCLUSION

In view of the arguments made herein, Appellants submit that the application is in condition for allowance.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously presented) A method for synchronizing a client having a client database with a server having a server database, the method comprising:

calculating at the server database, for a plurality of times and a plurality of clients, a document score for each document in a plurality of documents in the server database, each document score designating an importance relative to other documents of a respective one of the documents to a respective one of the clients at one of the times, each document score indicative of whether the document should be synchronized between the respective client and the server database, wherein calculating the document score includes determining whether a relationship exists between the respective one of the documents and another of the documents in the server database;

initiating a synchronization task at one of the clients, the synchronization task for updating documents in the client database to match documents in the server database, the synchronization task specifying a threshold value that indicates the document score value for a document to be synchronized, and identifying the server and the server database for synchronization;

sending from the identified server and server database to the client a list of server documents produced based upon a comparison of the threshold value to the document scores; and

sending from the client to the identified server a fetch list based upon the list of server documents;

transmitting one of the documents in the server database to the client based on the fetch list.

2. (Previously presented) The method of claim 1 wherein the step of sending comprises sending from the server to the client a list of server documents produced based upon a comparison of the threshold value to the document scores, wherein the list of server documents includes documents whose scores exceed the threshold value.

3. (Original) The method of claim 2 further comprising determining the threshold value based on a data storage capacity of the client.
4. (Previously presented) The method of claim 1 wherein the calculating a document score for one of the documents is determined from at least one of a time of creation of the document, a number of times the document has been read, a time of last access of the document and an author of the document.
5. (Cancelled)
6. (Cancelled)
7. (Original) The method of claim 1 further comprising:
determining if the client database includes a newly created document;
and
transmitting the newly created document to the server.
8. (Original) The method of claim 7 further comprising assigning a document score having a maximum value to the newly created document.
9. (Original) The method of claim 1 further comprising:
determining if the client database includes a modified document; and
transmitting the modified document to the server.
10. (Original) The method of claim 9 further comprising assigning a document score having a maximum value to the modified document.
11. (Original) The method of claim 1 wherein the client database includes a plurality of client documents, the method further comprising designating for

deletion one of the client documents based on a document score of a complementary document in the server database.

12. (Original) The method of claim 1 wherein the client database includes a plurality of client documents, the method further comprising removing one of the client documents from the client database based on a document score of a complementary document in the server database.

13. (Original) The method of claim 9 further comprising resolving a conflict between the modified document in the client database and a modified document in the server database.

14. (Original) The method of claim 11 further comprising removing the designation for deletion based on a document score of the complementary document in the server database.

15. (Original) The method of claim 11 further comprising increasing a data storage capacity of the client by deleting the one of the client documents designated for deletion.

16. (Previously presented) A computer program product for use with a computer system having a server with a server database, the server database storing a plurality of documents accessible to a client, the computer program product comprising a non-transitory computer useable medium having embodied therein program code comprising:

program code for calculating at the server database, for a plurality of times and a plurality of clients, a document score for each of the documents, each document score designating an importance relative to other documents of a respective one of the documents to a respective one of the clients at one of the times, each document score indicative of whether the document should be synchronized between the respective client and the server database, wherein

calculating the document score includes determining whether a relationship exists between the respective one of the documents and another of the documents in the server database;

program code for initiating a synchronization task at one of the clients, the synchronization task for updating documents in the client database to match documents in the server database, the synchronization task specifying a threshold value that indicates the document score value for a document to be synchronized, and identifying the server and the server database for synchronization;

program code for sending from the identified server and server database to the client a list of server documents produced based upon a comparison of the threshold value to the document scores; and

program code for sending from the client to the identified server a fetch list based upon the list of server documents; and

program code for transmitting one of the documents in the server database to the client based on the fetch list.

17. (Cancelled)

18. (Previously presented) The computer program product of claim 17 wherein the determination of the threshold value is based on a data storage capacity of the client.

19. (Previously presented) The computer program product of claim 16 wherein the calculating a document score for one of the documents is determined from at least one of a time of creation of the document, a number of times the document has been read, a time of last access of the document and an author of the document.

20. – 27. (Canceled)

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.